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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,741	08/15/2001	Edwin Frank Rejda	1734.041US1	1976

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EXAMINER

MCDONALD, RODNEY GLENN

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/930,741

Applicant(s)

REJDA ET AL.

Examiner

Rodney G. McDonald

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-10,12-20,30-37 and 39-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-10,12,20,30-34 and 38-42 is/are rejected.
- 7) ☒ Claim(s) 13-19,35-37 and 43-46 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The indicated allowability of claims 8-10, 12, 20, 30-34, 39-42 is withdrawn in view of the newly discovered reference(s) to Hitoshi et al. (Japan 09-243822).

Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

Claim 42 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 42 is indefinite because magneto resistive elements lack antecedent basis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 8, 9, 10, 30, 31, 32, 33, 39, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitoshi (Japan 09-243822) in view of Wu et al. (U.S. Pat. 6,045,671).

Regarding claims 8, 30, 32, 33, 39, 41, Hitoshi teach an element in the form of a substrate 1. A mask is located between the element and a source. An actuator 5 moves the mask. A controller 7 moves the mask 4 by controlling the drive means 5 based on a film thickness deposited on the substrate 1 through monitoring device 6. (See Abstract)

The differences between Hitoshi and the present claims is the mask including first and second shutters (Claim 8), the mask being a dynamic mask is not discussed (Claims 9, 31, 40), the actuation of the first and second shutters (claim 10) and the carrier is not discussed (Claim 30, 39).

Regarding the mask having first and second shutters (Claim 8), Wu et al. teach a mask in Figure 5 that utilizes first and second shutters to form thickness gradients on a substrate. The shutters are equipped with feedback mechanisms for controlling the position of the shutters. (Column 16 lines 33-68; Column 17 lines 1-38; Column 18 lines 13-19)

Regarding the mask being a dynamic mask (Claims 9, 31, 40), Wu et al. teach that each mask can be driven independently. (Column 17 lines 13-15)

Regarding the actuation of the first and second shutters (Claim 10), Wu et al. teach that the masks can have shutters that are actuated to form deposits on the substrate. (Column 17 lines 13-15)

Regarding the carrier for the element (Claim 30,39), Wu et al. suggest that a carrier is needed for holding the substrates. (Column 24 lines 41-42)

The motivation for utilizing a mask including first and second shutters, utilizing a mask being a dynamic mask, actuating the first and second shutters independently and utilizing a carrier is that it allows for depositing films on a substrate. (Column 1 lines 35-40)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hitoshi by utilizing a mask including first and second shutters, a mask being a dynamic mask, actuating the first and second shutters independently and utilizing a carrier as taught by Wu et al. because it allows for deposition of thin films on substrates.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hitoshi in view of Wu et al. as applied to claims 8, 9, 10, 30, 31, 32, 33, 39, 40 and 41 above, and further in view of Wilmanns (U.S. Pat 4,024,291).

The difference not yet discussed is the multiple substrates.

Wilmanns teach depositing on multiple substrates in a vapor deposition device. (Column 4 lines 16-19)

The motivation for depositing on multiple substrates is that it allows for coating multiple objects. (Column 4 lines 16-19)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized multiple substrates as taught by Wilmanns because it allows for coating multiple objects.

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Claims 12, 34, 38 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitoshi in view of Wu et al. as applied to claims 8, 9, 10, 30, 31, 32, 33, 39, 40 and 41 above, and further in view of Nakazawa et al. (U.S. Pat. 6,074,707).

The difference not yet discussed is deposition on magneto resistive elements.

Nakazawa et al. teach depositing on magnetoresistive elements. (See Abstract)

The motivation for depositing on magnetoresistive elements is that it allows formation of films for magnetic heads and the like. (Column 1 lines 8-10)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have deposited on magnetoresistive elements as taught by Nakazawa et al. because it allows for producing magnetic heads.

Allowable Subject Matter

Claims 13-19, 35-37 and 43-46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 13-19, 35-37 and 43-46 are indicated as being allowable because the prior art of record does not teach the claimed subject matter including utilizing the controller to actuate the shutters or at least one shutter in response to the electrical resistance monitored.

Response to Amendment


Applicant has overcome the 35 U.S.C. 112 rejections set forth in the prior office action. However new references have been cited to reject claims previously indicated as allowable. The new references are believed to teach at least one mask which is movable by an actuator in response to control signals received from a controller based on a monitored property level of the substrate (i.e. thickness) being deposited. This rejection is made based on the interpretation of the claims in their broadest sense.

This action will be made NON-Final based on the newly cited references.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney G. McDonald whose telephone number is 571-272-1340. The examiner can normally be reached on M- Th with Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Rodney G. McDonald
Primary Examiner
Art Unit 1753